

Amendments to the Claims

Please amend Claims 1-8 and add Claims 10 and 11, to read as follows.

1. (Currently Amended) A method for manufacturing a liquid discharge head comprising the steps of:

forming a solid layer for forming a flow path on a substrate on which an energy generating element is arranged to generate energy that is used to discharge ~~a~~ liquid;

forming, on the substrate where the solid layer is ~~mounted~~ formed, a coating resin layer for coating the solid layer;

forming a discharge port used to discharge ~~a~~ the liquid, through a photolithographic process, in the coating resin layer formed on the solid layer; and

removing the solid layer to form a flow path that communicates with the energy generating element and the discharge port,

whereby wherein a material used for the coating resin layer contains a cationically polymerizable ~~chemical compound~~ resin, a cationic photopolymerization initiator and an inhibitor of cationic photopolymerization, and

whereby wherein a material of the solid layer that forms a boundary with a portion where the discharge port of the coating resin layer is formed contains a copolymer of methacrylic acid and methacrylate ester.

2. (Currently Amended) A method according to claim 1, whereby wherein the boundary between the solid layer and the ~~coated~~ coating resin layer is formed of a copolymer of methacrylic acid and methyl methacrylate.

3. (Currently Amended) A method according to claim 1, whereby wherein the copolymer of methacrylic acid and methacrylate ester has a weight-average molecular weight of 50000 to 300000 and a ratio of a content of methacrylic acid of 5 to 30 weight%.

4. (Currently Amended) A method according to claim 1, whereby wherein the inhibitor of cationic photopolymerization is a basic material having a pair of nonshared electrons.

5. (Currently Amended) A method according to claim 4, whereby wherein the inhibitor of cationic photopolymerization is a nitrogen-containing compound having a pair of nonshared electrons.

6. (Currently Amended) A method according to claim 5, whereby wherein the inhibitor of cationic photopolymerization is an amine compound.

7. (Currently Amended) A method according to claim 1, whereby wherein the step of forming the solid layer includes the steps of:

forming, on the substrate, a first positive type photosensitive material layer that is exposed to ionizing radiation of a first wavelength,

forming, on the first positive type photosensitive material layer, a second positive type photosensitive material layer that is exposed to ionizing radiation of a second wavelength that is different from the first wavelength,

irradiating the ionizing radiation of the second wavelength to the substrate where the first and the second positive type photosensitive material layers are formed, and forming a desired pattern on the second positive type photosensitive material layer, and

irradiating the ionizing radiation of the first wavelength to the substrate where the first and the second positive type photosensitive material layers are formed, and forming a desired pattern on the first positive type photosensitive material layer[[;]], and

whereby wherein the second positive type photosensitive material layer forms the boundary with the ~~coated~~ coating resin layer.

8. (Currently Amended) A method according to claim 7, ~~whereby wherein~~ a material for forming the first positive type photosensitive material layer contains polymethylisopropenylketone.

9. (Original) A liquid discharge head manufactured by a method according to one of claims 1 to 8, wherein a discharge port formation material used for forming a discharge port for

the liquid discharge head contains a cationically polymerizable chemical compound, a cationic photopolymerization initiator and an inhibitor of cationic photopolymerization.

10. (New) A method according to claim 3, wherein the step of forming the solid layer comprises:

providing on the substrate a positive type photosensitive material layer containing the copolymer of methacrylic acid and methacrylate ester; and  
heating the positive type photosensitive material layer at 120 to 150°C.

11. (New) A method according to claim 1, wherein the step of forming the solid layer comprises:

providing on the substrate a positive type photosensitive material layer containing the copolymer of methacrylic acid and methacrylate ester with a solvent of diglyme,  
wherein the material used for the coating resin layer further contains xylene or methyl isobutyl ketone.